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REMARKS

The final Office Action dated July 7, 2007, has been carefully reviewed. Claims 1, 11 and 17 are amended. Claims 1-20 remain in the applications. It is respectfully requested that the Examiner reconsider the rejection of the claims in view of the amendments herein and the following remarks. It is respectfully asserted that the claims are being amended herein to bring them into better condition for allowance or appeal.

In the Office Action, the Examiner maintained the rejection of claims 1-10, 12 and 17-20 under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement. The Examiner asserted that the claims contain subject matter that was not described in the specification.

Applicants requested the Examiner reference the specification, beginning at paragraph [0019], along with Figure 3. However, the Examiner submits that these paragraphs and Figure do not disclose any act of scrambling the set of uniformly spaced samples and that they only disclose the non-uniform spaced samples after mapping are scrambled. Applicants respectfully disagree. It is respectfully asserted that paragraph [0024] in particular describes the scrambling of uniformly spaced samples. An excerpt from paragraph [0024] reads, "{R} is generated by **uniform** stepping between 1 and 0 in descending order. The {X} values are generated in ascending order with table lookup...At the end of lookup, the {X} values are then scrambled." It is respectfully asserted {R} is a set of numbers generated and that uniform stepping between 1 and 0 is the set of uniformly spaced samples. Therefore, it is respectfully requested that the Examiner withdraw the rejection of claims 1-10 and claim 12.

The Examiner also maintained the assertion that the limitation in claim 17 directed to "a third component for reducing said total number of samples needed to achieve a given statistical accuracy" is also not supported in the specification and that the specification does not disclose the companding function is for reducing the total number of samples as recited in claim 17. Again, Applicants respectfully disagree. Beginning at line 5 of paragraph [0026], the specification describes how "companding" **reduces the number of samples** generated between the popular region for a given number of total samples. It is respectfully asserted that "Companding", by definition and as it is known to one of ordinary skill in the art, is a process in which the range is reduced and then expanded to its original value for reproduction or playback. Therefore, it is respectfully asserted that the specification describes reducing the number of

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samples within a range to improve the representation of certain regions of interest on the PDF. This is called "companding" throughout the specification and it is respectfully asserted that the specification adequately supports Claim 17 which claims "a third component for **reducing said total number of samples** needed to achieve a given statistical accuracy". It is respectfully requested the Examiner withdraw the rejection of claims 17-20.

The Examiner rejected claims 1-20 under 35 U.S.C. § 112, second paragraph. The Examiner asserted that "scrambling said set of uniformly spaced samples" as found in claims 1 and 12, appears misdescriptive as not being supported by the specification. It is respectfully asserted that the support for this claim language can be found at lines 2-5 of paragraph [0024]. The Examiner also asserted that the invention as claimed only provides intermediate results. It is respectfully asserted that the independent claims have been amended in an attempt to overcome this rejection and more clearly define the random number generation as indicated by the Examiner.

The Examiner indicated that the recitation of "companding said uniformly spaced samples" in claim 7 is contrary to "mapping each one of said set of uniformly spaced samples" in claim 1. It is respectfully asserted that the "companding" described in claim 7 occurs after the set of uniformly spaced samples is scrambled and is not contrary to the step of "mapping" as it is claimed in claim 1. The "companding" step of claim 7 is performed in order to improve representation of certain regions of interest in the probability density function. It is respectfully asserted that this step does not occur during the step of mapping.

Regarding Claim 11, the Examiner indicated that it is unclear what is meant by "uniformly stepping said set of discrete samples" and that "said set of random numbers" lacks proper antecedent basis. Uniformly stepping said set of discrete samples describes generating uniformly spaced samples. It is respectfully asserted that Claim 11 has been amended herein to correct the "antecedent basis" problem, support for which can be found at paragraph [0024] of the specification.

Regarding Claim 17, the Examiner asserted that "said generated random number" lacks proper antecedent basis and that it is unclear as to what is scrambled. It is respectfully asserted that Claim 17 has been amended herein to correct the deficiencies, and support for the amendments can be found at paragraph [0024] of the specification.

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Regarding claim 19, the Examiner asserted that the claim language appears misdescriptive in that the number of low probability samples is decreased and the number of high probability samples is increased. Applicants respectfully refer the Examiner to paragraphs [0025] and [0026] where it is described that more than enough samples are generated for the high probability areas, and are thus "wasted". Therefore, companding increases the representation of low-probability samples without increasing the representation of high-probability samples. See paragraphs [0026] and [0027] of the specification for a specific example of how this is applied. The distribution of samples is modifiable, in other words, "a desired distribution" that allows the number of low probability samples to be decreased and the number of high probability samples to be increased. In effect the total number of samples remains the same, but their distribution is different in the low probability area as opposed to the high probability area.

It is respectfully requested the Examiner withdraw the rejection of claims 1-20 under 35 U.S.C. § 112.

The Examiner maintained the rejection of claims 1-20 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. It is respectfully requested the Examiner reconsider the claims of the present invention as a whole in light of the amendments herein. The amended claims include the step of utilizing the random number set in a statistical experiment. It is respectfully asserted that the claims are directed to a step that applies the randomly generated number set of the present invention to a physical object and does not merely present a set of numerical values.

It is respectfully asserted that the computer-based method and system for a random number generator claimed in claims 1-20 of the present invention is statutory subject matter. It is respectfully requested the Examiner withdraw the rejection.

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CONCLUSION

It is respectfully requested the Examiner reconsider the present application in light of the amendments and remarks herein. Should the Examiner remain unconvinced by the remarks herein, he is respectfully requested to contact the undersigned attorney to discuss possible changes to the claims that would be sufficient to bring the claims into condition for allowance.

Should any fees be associated with this submission, the Commissioner is authorized to charge Deposit Account 50-0383 of The DIRECTV Group, Inc.

Respectfully submitted,



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